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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,475	02/24/2004	Michael Palmersten	1052.1103101	8549

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EXAMINER

LAUX, JESSICA L

ART UNIT	PAPER NUMBER
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3635

MAIL DATE	DELIVERY MODE
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05/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/785,475	Applicant(s) PALMERSTEN, MICHAEL	
	Examiner Jessica Laux	Art Unit 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 33-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2007 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>05/12/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3635

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Species III in the reply filed on 02/27/2007 is acknowledged.

Claims 33-38 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 02/27/2007.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 11-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification is not enabling nor does it provide support for the limitations for testing with the claimed test or hardness ranges.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10-13, 20, 25-26, 28, 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Graf (6032434).

Art Unit: 3635

Regarding claim 10: Graf discloses a structural panel for use in building construction, comprising:

- a first skin (68) having a first surface and a second surface;

- a first interior layer (A) having a first surface facing the first surface of the first skin, a second surface, and a hardness;

- a second interior layer (B) having a first surface facing the second surface of the first interior layer, a second surface, and a hardness;

- a third interior layer (E) having a first surface facing the second surface of the second interior layer, a second surface, and a hardness;

- and a second skin (60) having a first surface facing the second surface of the third interior layer;

wherein the hardness of the second interior layer is greater than the hardness of the first and third interior layers.

Regarding claim 11 as best understood: The structural panel of claim 10, wherein the hardness of the first and third interior layer is in a first range measurable by the durometer hardness measurement test, and wherein the hardness of the second interior layer is in a second range not coextensive with the first range.

Regarding claim 12 as best understood: The structural panel of claim 11, wherein the second range is measurable by the Brinell hardness test.

Regarding claim 13 as best understood: The structural panel of claim 11, wherein the second range is measurable by the Rockwell hardness test

Art Unit: 3635

Regarding claim 20: The structural panel of claim 10, wherein the first skin comprises wood.

Regarding claim 25: The structural panel of claim 10, wherein the second interior layer comprises wood.

Regarding claim 26: The structural panel of claim 10, wherein the first and second skins and the first, second and third interior layers are fixed with respect to each other (figure 11).

Regarding claim 28: The structural panel of claim 10, further comprising:
a fourth interior layer (C) having a first surface facing the second surface of the third interior layer, a second surface, and a hardness;

a fifth interior layer (E) having a first surface facing the second surface of the fourth interior layer, a second surface facing the first surface of the third interior layer, and a hardness, the hardness of the fifth interior layer being greater than that of any of the first, third, and fourth interior layers.

Regarding claim 9: The structural panel of claim 28, wherein the hardness of the fifth interior layer is substantially similar to the hardness of the second interior layer (figure 11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-19 and 21-24 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graf (6032434).

Regarding claims 1 and 3-4: Graf discloses a structural panel for use in building construction, comprising:

- a first skin (68) having a first surface and a second surface;
- a first sheet (A) having a first surface and a second surface;
- a first membrane (B) having a first surface and a second surface for retaining a portion of a fastener;
- a second foam (E) sheet having a first surface and a second surface;
- and a second skin (60) having a first surface and a second surface,

wherein the first foam sheet is fixed between the first skin and the membrane, the second foam sheet is fixed between the second skin and the member, and the membrane is fixed between the first skin and the second skin.

Graf discloses the invention as above, but does not expressly disclose that the first and second sheets are foam. Instead Graf discloses that the sheets are made of a mat-type insulation material. Applicant has not disclosed that having foam solves any stated problem or is for any particular purpose.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use polystyrene or polyurethane foam sheets because applicant has not disclosed that polystyrene or polyurethane foam provides an advantage, or solves a stated problem. Furthermore applicant discloses in

Art Unit: 3635

the specification that any material comprising good shear strength and stiffness and insulating properties is acceptable .

One of ordinary skill in the art, furthermore, would have expected Graf's, and applicant's invention to perform equally well with either the material taught by Graf or the claimed foam because both would perform the same function of providing structural integrity and insulating properties to the panel equally well.

Therefore, it would have been prima facie obvious to modify Graf to obtain the invention as specified in the claim because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of Graf.

Regarding claim 8: The structural panel of claim 1, wherein the first skin comprises wood.

Regarding claims 5-7 and 17-19: The structural panel of claims 1 and 10 above, wherein Graf discloses the invention as in claim 1 above, but does not expressly disclose that the first skin comprises a metal of steel or aluminum. Instead Graf discloses wood.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use a metal of steel or aluminum because applicant has not disclosed that the metal provides an advantage, or solves a stated problem. Furthermore applicant discloses in the specification and claims that wood is an acceptable alternative to the metal skin. One of ordinary skill in the art, furthermore, would have expected Graf's, and applicant's invention to perform equally

Art Unit: 3635

well with either material taught by Graf or the claimed metal because both would perform the same function of providing structural integrity to the panel equally well considering.

Therefore, it would have been prima facie obvious to modify Graf to obtain the invention as specified in the claims because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of Graf.

Regarding claim 9: The structural panel of claim 1, further comprising a second membrane (D) fixed between the first membrane and the second foam sheet for retaining a portion of a fastener; and a third foam (C) sheet fixed between the first membrane and the second membrane.

Regarding claims 2 and 14: Graf discloses the structural panel of claims 1 and 10, but does not expressly disclose the panel comprising a first interlocking edge and a second interlocking edge, the first interlocking edge configured to interlock with a second interlocking edge of a second structural panel of similar configuration to the structural panel. It is notoriously well known in the art to have panels with interlocking edges to interconnect multiple panels together for various uses including for use in a building. Therefore it would have been obvious to one of ordinary skill in the art to modify the panel of Graf to have interlocking edges as claimed to provide a more secure connection between adjacent panels.

Art Unit: 3635

Regarding claims 15-16 and 24: Graf discloses the structural panel of claim 14, but does not expressly disclose that the second interior layer comprises steel or aluminum. Instead Graf discloses that the second interior layer is made of wood.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use wood because applicant has not disclosed that steel or aluminum provides an advantage, or solves a stated problem. Further, applicant discloses in the specification on page 6 lines 3-4 that wood is an acceptable material choice. One of ordinary skill in the art, furthermore, would have expected Graf's, and applicant's invention to perform equally well with either the material taught by Graf or the claimed metals because both would provide structural support the panel equally well.

Therefore, it would have been prima facie obvious to modify Graf to obtain the invention as specified in claims 15-16 because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of Graf.

Regarding claims 21-23: Graf discloses the invention as in claim 10 above, but does not expressly disclose that the first and second sheets are polystyrene or polyurethane foam. Instead Graf discloses that the sheets are made of a mat-type insulation material. Applicant has not disclosed that having foam solves any stated problem or is for any particular purpose.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use foam sheets because

Art Unit: 3635

applicant has not disclosed that polystyrene or polyurethane foam provides an advantage, or solves a stated problem. Furthermore applicant discloses in the specification that any material comprising good shear strength and stiffness and insulating properties is acceptable.

One of ordinary skill in the art, furthermore, would have expected Graf's, and applicant's invention to perform equally well with either the material taught by Graf or the claimed foam because both would perform the same function of providing structural integrity and insulating properties to the panel equally well.

Therefore, it would have been prima facie obvious to modify Graf to obtain the invention as specified in the claim because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of Graf.

Regarding claim 27: Graf discloses the structural panel of claim 26, but does not expressly disclose an adhesive. Instead Graf discloses that the layers are interconnected via connecting means for example nails or clamps. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the panel of Graf to use adhesive for interconnecting the layers as adhesive is a notoriously common and well known means for of connecting layers together as it provides a strong connection.

Claims 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graf (6032434) in view of Bergiadis (5661273).

Art Unit: 3635

Regarding claims 30, 31, 32: Graf discloses the structural panel of claims 27 and 28, having ribs (66) that extends from a first edge to a second edge of the panel (figure 10), but does not expressly disclose further comprising a rib having a first edge joined to the second surface of the second interior panel and a second edge joined to the first surface of the fifth interior panel, the rib having a hardness greater than any of that that of the first, third or fourth interior layers.

Bergiadis discloses a structural panel having multiple layers within reinforcing ribs (28) where the rib has a first edge joined to the second surface of the second interior panel and a second edge joined to the first surface of the fifth interior panel, the rib having a hardness greater than any of that that of the first, third or fourth interior layers.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the panel of Graf to have ribs extend between the layers with first and second edges joint the second and fifth interior panels to provide a more rigid panel.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica Laux whose telephone number is 571-272-8228. The examiner can normally be reached on Monday thru Friday, 6:30am to 2:30pm (est).

Art Unit: 3635

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Friedman can be reached on 571-272-6842. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SI

JL
05/09/2007


Jeanette Chapman
Primary Examiner